

REMARKS

I. Introduction

In response to the pending Office Action, Applicants note that claims 1-5 were cancelled in the Request Form for Application Under 37 CFR § 1.53(b) filed on October 8, 2003. A copy of the Request Form is being provided to the Examiner.

Applicants would like to point out to the Examiner that corrected drawings of Figs. 12-15 were submitted in the previous response of June 1, 2006. As such, Applicants respectfully submit that the drawings are correct as currently submitted, and that the objection be withdrawn.

For the reasons set forth below, Applicants respectfully submit that all pending claims are in condition for allowance.

II. The Rejection Of Claim 6 Under 35 U.S.C. § 112

Claim 6 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants respectfully submit that claim 6 is not indefinite for at least the following reasons.

The Examiner alleges that in claim 1, it is not understood how the signal can be provided to the filter by “way of gain adjusting means”, where this means comes from, how the gain IS to be “set” since no means for performing setting function is recited in this claim and how the value can realize a desired transfer function and what the value and the desired transfer function are. The Examiner then alleges “the same is true for claim 6”.

However, claim 6 recites neither how the gain to be “set”, nor the means for performing setting function, nor how the value can realize a desired transfer function, nor what the value and the desired transfer function are. Claim 6 does not recite any of the features in the last paragraph of page 2 of the Office Action except the “way of gain adjusting means”. The present invention describes the way the signal can be provided to the filter by “way of gain adjusting means” on page 6, line 1 to page 7, line 7, page 10, line 16-page 11, line 1 and Fig. 1 of the specification. Fig. 1 clearly shows a signal input terminal IN1 transmitting a signal to the voltage-controlled current sources 11a-11g via the constant-ratio gain calculators 15a-15c, which constitute the way of gain adjusting means. Accordingly, Applicants respectfully submit that claim 6 is not indefinite under § 112, second paragraph and request that the § 112 rejection be withdrawn.

III. The Rejection Of Claims 6-7 Under 35 U.S.C. § 103

Claims 6-7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoashizawa (USP No. 6,369,644) in view of Kovacs et al. (USP No. 6,144,981). Applicants respectfully traverse these rejections for at least the following reasons.

With regard to the present invention, claim 6 recites, in-part, an analog equalizer comprising: a ladder filter including multiple inductor sections, each said inductor section being implemented by an equivalent circuit including voltage-controlled current sources and capacitors; means for detecting an error between an output signal of the ladder filter and a reference signal; and means for changing a filter characteristic of the ladder filter by reference to the error that has been detected by the detecting means, wherein a signal input to the ladder filter is provided to at least one of the voltage-controlled current sources by way of gain adjusting means, which obtains a variable gain, and wherein the changing means changes the gain,

obtained by the gain adjusting means of the ladder filter, based on the error that has been detected by the detecting means.

Yoshizawa teaches a comparator 17, that controls the gain of the gain variable circuit 11, which supplies an input signal to a filter 12, via a clip circuit 19. However, in contrast to the present invention, Yoshizawa fails to teach or suggest *means for changing a filter characteristic* of the ladder filter. Furthermore, Kovas does not remedy this deficiency. Nor does the Examiner allege that Yoshizawa or Kovas teach the above cited limitation. The Office Action is silent with respect to this limitation. As such, Applicants submit that the combination of Yoshizawa and Kovas, at a minimum, fails to teach a means for changing a filter characteristic of the ladder filter by reference to the error that has been detected by the detecting means, wherein a signal input to the ladder filter is provided to at least one of the voltage-controlled current sources.

In order to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 180 USPQ 580 (CCPA1974). As Yoshizawa and Kovas both fail to teach or suggest a means for changing a filter characteristic of the ladder filter by reference to the error that has been detected by the detecting means, wherein a signal input to the ladder filter is provided to at least one of the voltage-controlled current sources, it is submitted that Yoshizawa and Kovas do not render claim 6 obvious. Accordingly, it is respectfully requested that the § 103 rejection of claim 6, and any pending claims dependent thereon be withdrawn.

**III. All Dependent Claims Are Allowable Because The
Independent Claim From Which They Depend Is Allowable**

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claim 6 is patentable for the reasons set forth above, it is respectfully submitted that all pending dependent claims are also in condition for allowance.


IV. Conclusion

Having fully responded to all matters raised in the Office Action, Applicants submit that all claims are in condition for allowance, an indication of which is respectfully solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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